What is claimed is:

1. A screen-printing apparatus comprising:

(a) a substrate-positioning means for positioning a substrate relative to a screen mask having pattern openings;

(b) a three-dimensional-measuring means for measuring three-dimensionally a top surface of the screen mask at a printing position and a top surface of the substrate at a measuring position of the substrate;

(c) a moving means for moving said three-dimensional-measuring means; and

(d) an inspecting means for inspecting at least one of the substrate and the screen mask based on a result of measurement by said three-dimensional-measuring means,

wherein said apparatus prints paste on the substrate through the pattern openings by attaching the screen mask to the substrate and sliding a squeegee head on the screen mask.

2. The screen-printing apparatus according to claim 1 wherein the inspection determines fail or pass of at least one of the screen mask and the substrate supplied from a prior step, and said inspecting means includes a supply-material-determining section which determines fail or pass.

3. The screen-printing apparatus according to claim 2 wherein the inspection is a printing inspection for the substrate after being printed and said inspection means includes a print-determining section for determining fail or pass of a printing result based on the result of measurement.

4. The screen-printing apparatus according to claim 3, further

including a touch-up means for touching up a print-failure part of the substrate determined print-failure by said print-determining section.

5. The screen-printing apparatus according to claim 4, wherein said touch-up means includes a touch-up-determining section for determining whether or not re-printing is necessary to the substrate determined as a fail.

6. The screen-printing apparatus according to claim 4, wherein said touch-up means includes a paste-dispensing means for adding paste to the print-failure part by dispensing the paste.

7. A screen-printing apparatus comprising:

(a) a substrate-positioning means for positioning a substrate relative to a screen mask having pattern openings;

(b) a three-dimensional-measuring means for measuring three-dimensionally from above the screen mask at a printing position and the substrate at a measuring position of the substrate;

(c) a moving means for moving said three-dimension-measuring means;

(d) a print-condition-setting means for setting screen-printing conditions based on a measuring result by said three-dimensional-means; and

(e) a print-condition-store means for storing the printing conditions set,

wherein said apparatus prints paste on the substrate through the pattern openings by attaching the screen mask to the substrate and sliding a squeegee head on the screen mask.

8. A screen-printing apparatus comprising:

(a) a substrate-positioning means for positioning a substrate relative to a screen mask having pattern openings;

(b) a three-dimensional-measuring means for measuring three-dimensionally an object to be measured within a range including said substrate-positioning means and a mounting section of the screen mask;

(c) a moving means for moving said three-dimensional-measuring means;

(d) an origin-determining means for setting an origin on a control program by identifying a position of predetermined measuring point on the object to be measured with respect to an origin of a mechanical-coordinate system of said screen-printing apparatus based on a result measured by said three-dimensional measuring means;

wherein said apparatus prints paste on the substrate through the pattern openings by attaching the screen mask to the substrate and sliding a squeegee head on the screen mask.

9. The screen-printing apparatus according to claim 8 further including a failure-alarm means for alarming mechanical accuracy failure of said screen-printing apparatus based on the result measured.

10. A method of screen printing for printing paste on a substrate through pattern openings by attaching a screen mask having the pattern openings to the substrate and sliding a squeegee head on the screen mask, said method comprising the steps of:

(a) positioning the substrate relative to the screen mask;

(b) measuring three-dimensionally a top surface of the screen

mask at a printing position and a top surface of the substrate at a measuring position of the substrate by a three-dimensional measuring means moved by a moving means;

(c) inspecting at least one of the substrate and the screen mask based on a measuring result by said three-dimensional measuring means.

11. A method of screen printing for printing paste on a substrate through pattern openings by attaching a screen mask having the pattern openings to the substrate and sliding a squeegee head on the screen mask, said method comprising the steps of:

(a) measuring from above at least one of the screen mask after being printed at a printing position and the substrate after being printed at a measuring position of the substrate by a three-dimensional-measuring means;

(b) setting printing conditions of screen printing based on a result measured by said three-dimensional-measuring means; and

(c) storing the printing conditions set in a print-condition-storing means.

12. The method of screen printing according to claim 11, wherein step (a) is performed before printing starts and after trial printing is completed and printing conditions for actual printing are determined based on results set in step (b).

13. The method of screen printing according to claim 11, wherein step (a) is performed at a predetermining timing during actual printing, and printing conditions for the actual printing are changed based on results set in step (b).

14. The method of screen printing according to claim 11, the printing conditions further including:

(a) a squeegee velocity at which the squeegee slides;

(b) a print-pressure value at which the squeegee is urged against the screen mask;

(c) a substrate-detaching velocity indicating a detaching velocity of the substrate relative to the screen mask and a substrate-detaching-distance indicating a detaching distance of the substrate relative to the screen mask.

15. The method of screen printing according to claim 12, the printing conditions further including:

(a) a squeegee velocity at which the squeegee slides;

(b) a print-pressure value at which the squeegee is urged against the screen mask;

(c) a substrate-detaching velocity indicating a detaching velocity of the substrate relative to the screen mask and a substrate-detaching-distance indicating a detaching distance of the substrate relative to the screen mask.

16. The method of screen printing according to claim 13, the printing conditions further including:

(a) a squeegee velocity at which the squeegee slides;

(b) a print-pressure value at which the squeegee is urged against the screen mask;

(c) a substrate-detaching velocity indicating a detaching velocity

of the substrate relative to the screen mask and a substrate-detaching-distance indicating a detaching distance of the substrate relative to the screen mask.

17 A method of screen printing for printing paste on a substrate through pattern openings by attaching a screen mask having the pattern openings to the substrate and sliding a squeegee head on the screen mask, said method comprising the step of:

measuring three-dimensionally a predetermined measuring point of mechanism of said apparatus, identifying a position of the measuring point with respect to an origin in a mechanical coordinate of said apparatus based on measuring results and setting a position of an origin on a control program by a three-dimensional-measuring means having a measuring range including a substrate-positioning means for positioning the substrate relative to the screen mask and a screen mask mounting section.

18. The method of screen printing according to claim 17, wherein said method gives a notice of mechanical accuracy failure of said screen-printing apparatus based on the measuring results.